

## PATENT ABSTRACTS OF JAPAN

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## (54) SPUTTERING DEVICE AND CATHODE

(57)Abstract:

**PURPOSE:** To improve cooling efficiency and to increase the power to be thrown at the time of sputtering by forming ruggedness on the cooling surface of a backing plate holding a target material and increasing the surface area of the cooling surface.

**CONSTITUTION:** The backing plate 190 of a cathode 195 is installed to face a base film B right under a cooling can 87 in a vacuum chamber 81b of the sputtering device and the target material 88 is installed thereon. The rear surface 194 of the backing plate 190 is cooled by cooling water 92 and many pieces of the ruggedness 100 are formed on the cooling surface 194. Many pieces of the ruggedness 100 are formed at  $\geq 1\text{mm}$  and  $\leq 10\text{mm}$  height of the protruding part 100a and  $\geq 1\text{mm}$  and  $\leq 30\text{mm}$  periods. As a result, productivity is improved and the target material 92 is stably held.

